

**California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348**

STATEMENT OF BASIS

October 25, 2002

ITEM: 14

SUBJECT: Waste Discharge Requirements for Aera Energy LLC, Huntington Beach Crude Oil and Gas Production Facilities; Huntington Beach, Orange County, Order No. R8-2002-0078, NPDES No. CAS618001

BACKGROUND:

On February 16, 2001, Aera Energy LLC (discharger, formerly known as CalResources LLC), submitted a renewal application for the discharge of storm water runoff under the National Pollutant Discharge Elimination System (NPDES) from its Huntington Beach oil and gas production facilities located in the City of Huntington Beach, Orange County, California. The site is divided into three distinct areas, the facility production strip area (strip), the Bolsa Chica wells area (Bolsa Chica Wetlands area), and the Townlot leases.

Currently, the discharger separates the storm water runoff from the strip into two areas. The storm water runoff from areas of the strip, where storm water comes in contact with oil production and processing equipment such as wells, tanks, and pipelines (primarily the southwestern half of the strip), is considered 'oil impacted.' The storm water runoff from the northeastern half of the strip, in areas where there is no production or processing equipment, is considered 'non-impacted.' The 'oil impacted' storm water is pumped from a series of collection pits along the length of the strip to the facility's produced fluid handling system and is reinjected into the oil reservoirs. The 'non-impacted' storm water is pumped from a separate collection system to two detention ponds located near the facility's front gate at Goldenwest Street at the southeastern corner of the strip, where the water is allowed to percolate and/or evaporate. The total capacities of the detention ponds are 70,000 barrels (twice the capacity for 25-year, 24-hour storm at this site).

During a large storm or series of storms where the capacities of the detention ponds are exceeded, it may be necessary to discharge storm water from the detention ponds to the local municipal storm drain system. Currently, storm water overflow from the ponds discharges at Outfall 002 and is sampled. However, a new Outfall, 009, when approved by the City of Huntington Beach, will allow for more control of discharge from the ponds to the municipal storm system via subsurface piping. Prior to discharging from this new Outfall, the storm water in the ponds would be analyzed for pollutants of concern. If the retained storm water is found to be in compliance with the discharge limitations specified in this Order, the water will be pumped to the municipal storm drain via the

new Outfall line and discharged to the beach and on to the Pacific Ocean. In the event that analytical results show that the storm water contains pollutants above the discharge limitations specified in this Order, the storm water will be pumped to the facility's produced fluid handling system and reinjected into the oil reservoirs.

The storm water runoff from the Bolsa Chica Wetlands area will be handled in the same manner as previous years by pumping the storm water over the levee to the Bolsa Chica State Ecological Reserve (Outfall 001). This discharge is pursuant to an existing agreement between the California Department of Fish and Game, landowners, and Aera Energy LLC.

The Townlot Leases site is bermed and enclosed with a block wall, and water collected in this area does not leave the site. Therefore, there will be no storm water discharges from the Townlot Leases site.

Historically, there were eight storm water discharge locations, Outfalls 001 to 008 (see Attachments "C" and "D," Outfall Location Maps). Construction northeast of the strip has altered the storm water flow patterns for this facility, and, therefore, the number of storm water outfalls has been reduced. Outfalls 003, 004, 007, and 008 will no longer discharge storm water and, therefore, monitoring of these historical outfalls will no longer be required. Monitoring will continue to be required for Outfalls 001 (discharges from the wetlands area to Inner Bolsa Bay), 002 (discharges from the eastern 'non-impacted' strip out the front gate to Goldenwest Street), 005 (discharges from the south-eastern corner of the wetlands area to Pacific Coast Highway), and 006 (discharges from the northwestern 'non-impacted' strip area to Palm Avenue, north of the site). If constructed, monitoring will also be required for new Outfall 009. The monitoring will be used to determine compliance with specified discharge limitations and to assess the effectiveness of the discharger's source control efforts and Storm Water Pollution Prevention Plan (SWPPP). The discharger has developed and implemented best management practices (BMPs) as part of its Oil Spill Containment Plan, contained in the Integrated Contingency Plan for the Los Angeles Basin Production Unit. The Integrated Contingency Plan includes the essential elements for controlling pollutants in storm water discharges and is used in place of a SWPPP for this facility.

The proposed Order includes discharge limitations for total suspended solids, oil and grease, total organic carbon and pH, in addition to narrative limits and acute toxicity limits. These limits are in accordance with the State and federal regulations and the Basin Plan objectives.

These requirements should be adequate to protect the beneficial uses of waters in the region.

RECOMMENDATION:

Adopt Order No. R8-2002-0078, NPDES No. CA CAS618001, as presented.

COMMENTS SOLICITATION:

In addition to the discharger, comments were solicited from the following agencies and/or persons:

Amigos de Bolsa Chica
Audubon Society, Sea & Sage Chapter
Bolsa Chica Conservancy
Bolsa Chica Foundation – Terry A. Dolton
The Bolsa Chica Land Trust – Evan Henry
California Coastal Commission, South Coast Area Office – Teresa Henry
California Department of Fish and Game – San Diego
California Department of Health Services – Santa Ana
California Department of Parks and Recreation – Don Ito
California Department of Water Resources – Glendale
California Shore & Beach Preservation Association – Chris Webb
Caltrans, District 12, Santa Ana – Grace Pina-Garrett
Defend the Bay – Bob Caustin
Friends of Harbors, Beaches & Parks
Friends of the San Gabriel River
City of Huntington Beach, NPDES Coordinator – Geraldine Lucas
Huntington Beach Wetlands Conservancy – Gary Gorman
Lawyers for Clean Water – Kimberly Lewand, Daniel Cooper
National Oceanic and Atmospheric Adm., National Marine Fisheries Service – Rodney McInnis
Natural Resources Defense Council – David Beckman
The Nature Conservancy – Orange County Office
Orange County CoastKeeper – Garry Brown
Orange County Health Care Agency – Larry Honeybourne
Orange County Public Facilities and Resources Department, Watershed & Coastal Resources
Division – Chris Crompton
Orange County Public Facilities and Resources Department, Harbors, Beaches and Parks – Kevin
Thomas
Orange County Sanitation Districts, General Manager – Blake Anderson
Orange County Vector Control, District Manager – Gilbert Challe
Orange County Water District, General Manager – Virginia Grebbien
Sierra Club – Orange County Group
Southern California Coastal Water Research Project – Ken Schiff
State Water Resources Control Board, Division of Water Quality – Maryann Jones
State Water Resources Control Board, Office of Chief Counsel – Jorge Leon
Surfrider Foundation, Huntington/Long Beach Chapter – Don Schulz
Tetra Tech, Long Beach – Thomas Rauls
U.S. Army District, Los Angeles, Corps of Engineers – Permits Section
U.S. Coast Guard, Marine Safety Office, Long Beach/Los Angeles – Lt. Rob Collar
U.S. Environmental Protection Agency – Terry Oda/Eugene Bromley (WTR-5)
U.S. Fish and Wildlife Service, Carlsbad – Loren Hayes

**California Regional Water Quality Control Board
Santa Ana Region**

**ORDER NO. R8-2002-0078
NPDES NO. CAS618001**

**Waste Discharge Requirements
for
Aera Energy LLC, Huntington Beach Crude Oil and Gas Production Facilities
Storm Water Runoff
Huntington Beach, Orange County**

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter the Regional Board), finds that:

1. Aera Energy LLC (formerly known as CalResources LLC, hereinafter discharger) operates a crude oil and gas production facility located at 20101 Goldenwest Street in the City of Huntington Beach, Orange County. Storm water discharges from the facility are currently regulated under Order No. 96-5, NPDES No. CAS618001. This Order expired on August 1, 2001 and was administratively extended until revised waste discharge requirements are adopted.
2. On February 16, 2001, the discharger submitted a renewal application for the discharge of storm water runoff under the National Pollutant Discharge Elimination System (NPDES) from its Huntington Beach oil and gas production facilities. Additional information to complete the application was provided on April 12, 2002.
3. The production facilities are located on the northwestern coastal section of Orange County. The site is divided into three distinct onshore areas: the facility production strip area (strip), the Townlot Leases, and the Bolsa Chica Wetlands area facilities.
 - a. The strip is situated on 93 acres along Pacific Coast Highway running parallel to Bolsa Chica Beach State Park at Township 5 South (T5S), Range 11 West (R11W), Sections 28, 29, 32, and 33 of the San Bernardino Baseline and Meridian (SBB&M). The strip includes wells, storage tanks, equipment used in processing the produced oil, water, and gas, and various buildings to support the operation. The oil processing equipment includes free water knock out vessels, wet oil, and Lease Automated Custody Transfer units, where the processed crude oil is measured and shipped from the facility via pipeline. The water processing equipment includes floatation cell units and reinjection systems. The processing facilities have a maximum handling capacity of 18,500 barrels (bbl) of crude oil and 290,000 bbl of produced water. The strip area also receives produced fluids from the two onshore areas discussed in "b" and "c" below. In addition to the onshore production areas, the strip area also receives produced fluids from wells on Platform Emmy, which is located approximately 1.25 miles offshore in State waters. Current levels of production processed at the strip (from all areas combined) are 6,700 bbls of crude oil and 120,000 bbls of produced water. The location of the Huntington Beach facilities, including Platform Emmy, is shown on Attachment "A," which is hereby made a part of this Order.

- b. The Townlot Leases site (formerly known as the Fort Apache Leases) is located at 19th Street and Walnut Avenue in the City of Huntington Beach, Orange County. Produced fluids from the Townlot Leases site are transferred to the strip via underground pipelines. The Townlot Leases site is surrounded by a concrete block wall, which serves as a containment structure. No discharge of storm water is anticipated at the Townlot Leases site. The location of the site is shown on Attachment "B," which is hereby made a part of this Order.
 - c. The Bolsa Chica Wetlands area facilities are dispersed over a total area of 1,267 acres and are located at T6S, R11W, Section 4, SBB&M. This site includes 155 production wells (78 active, 77 idle) and 39 injection wells (13 active, 26 idle), for a total of 194 wells and associated pipelines. There is no processing equipment located in the Bolsa Chica Wetlands area. This production area lies adjacent to (inland from) the Bolsa Chica Ecological Reserve.
 4. The discharger has developed and implemented best management practices (BMPs) as part of its Oil Spill Containment and Response Plan, contained in the Integrated Contingency Plan for the Los Angeles Basin Production Unit. The Integrated Contingency Plan includes all the necessary elements for controlling pollutants in storm water discharges and is used in place of a Storm Water Pollution Prevention Plan (SWPPP) for this facility. BMPs for spill control include the following:
 - a. Spill control and prevention measures to prevent and to clean up spills including routine inspection and maintenance of equipment utilized for these measures;
 - b. Secondary containment and alarm warning systems for high and low tank levels for tanks handling produced fluids;
 - c. Process Control and Data Acquisition Instrumentation computer system to monitor the facility on a continuous basis. This system will aid in leak detection and emergency shutdown of the facility; and,
 - d. Berms around the perimeter of the strip to contain leaks, spills and other incidental discharges.
 5. The discharger separates the runoff from the strip into two areas. The storm water runoff from the southwestern half of the facility, which comes in contact with the production facilities (buildings, operations, equipment, etc.), is considered "oil impacted." This storm water runoff from the strip area is collected in a series of collection pits running northwest to southeast along the length of the facility. These pits are pumped into a collection system and combined with the produced water and reinjected into the oil reservoirs. The storm water runoff from the northeastern half of the strip, where there is no process equipment, is considered "non-impacted." The non-impacted storm water is pumped to a collection system leading to two detention ponds (percolation and/or evaporation ponds) near the gate at Goldenwest Street in the southeast corner of the strip. Total capacities of the detention ponds are 70,000 bbls (twice the capacity for a 25-year, 24-hour storm at this site).

6. During a large storm or series of storms where the capacities of the detention ponds are exceeded, it may be necessary to discharge the storm water from the facility to the local municipal storm drain system. Currently, storm water overflow from the ponds discharges at Outfall 002 and is sampled. However, a new Outfall, 009, when approved by the City of Huntington Beach, will allow for more control of discharge from the ponds to the municipal storm system via subsurface piping. Prior to discharging from this new Outfall, the storm water in the ponds would be analyzed for pollutants of concern. If the retained storm water is found to be in compliance with the specified discharge limitations in this Order, the water will be pumped to the municipal storm drain via the new Outfall line and discharged to the beach and on to the Pacific Ocean. In the event that analytical results show that the retained storm water contains pollutants above the discharge limitations specified in this Order, the storm water will be pumped to the facility's produced fluid handling system and reinjected into the oil reservoirs.
7. The storm water runoff from the Bolsa Chica Wetlands area has historically been pumped from the facility property, over a levee, into the Bolsa Chica Ecological Reserve, through an agreement between the California Department of Fish and Game, landowners, and Aera Energy LLC or its predecessors. The provisions of the agreement remain in effect until August 30, 2003, unless otherwise amended by written agreement of all parties. This discharge will continue, under the aforementioned agreement (or an amended or new agreement with similar objectives).
8. The outfall locations to be monitored are summarized in the following table and are shown on Attachments "C" and "D." Historical outfall locations (Outfalls 003, 004, 007 and 008) and proposed Outfall 009 are also shown on Attachments "C" and "D."

OUTFALL LOCATIONS

Outfall Number	Discharger's Identification	Latitude			Longitude			Receiving Water
001	Bolsa Chica	33°	41'	54.6"	118°	2'	38.7"	Bolsa Chica Ecological Reserve/Pacific Ocean
002	23	33°	40'	12.0"	118°	0'	54.0"	Storm Drain/Pacific Ocean
005	4	33°	40'	41.0"	118°	1'	55.0"	Pacific Ocean
006	11	33°	40'	41.5"	118°	1'	33.6"	Storm Drain/Pacific Ocean
009	Not Yet Constructed							Storm Drain/Pacific Ocean

9. Construction northeast of the strip has altered the storm water flow patterns for this facility, and, therefore, the number of storm water outfalls at the strip facility has decreased. Outfalls 003, 004, 007 and 008 are no longer discharge points and will not require monitoring. Continued monitoring is required for Outfalls 001, 002, 005 and 006 to determine compliance with specified discharge limitations and to assess the effectiveness of the discharger's source control efforts and SWPPP. Further, if Outfall 009 is constructed, linking the storm water retention ponds to the City of Huntington Beach municipal storm

system, the retained water will be analyzed to determine compliance with specified discharge limitations prior to discharge.

10. The discharger has developed an Integrated Contingency Plan (ICP) for this site. The ICP includes facility information on daily production operations activities, bulk storage operations, system transfer operations, secondary containment systems, drainage plans, fire protection, chemical storage, and other miscellaneous site operations. The ICP also includes information on Spill Prevention, Notification and Reporting Procedures, Aera Incident Management System, OSHA Prevention and Preparedness (Emergency Action Plan, Fire Prevention Plan), Waste Management and Disposal Plan, Site Security Plan, Risk and Hazard Analysis, Response Planning, Response Techniques, Training and Drills, List of Contacts, and other facility policies and procedures. The ICP is considered to include all the essential elements for controlling pollutants in storm water discharges and is used in place of the SWPPP for this facility. This Order requires the discharger to update the ICP, as appropriate, considering any plant changes that could affect the implementation of the plan.
11. A revised Basin Plan was adopted by the Regional Board and became effective on January 24, 1995. The Basin Plan contains water quality objectives and beneficial uses of the waters in the Santa Ana Region.
12. The beneficial uses of the Bolsa Chica Ecological Reserve include:
 - a. Water contact recreation,
 - b. Non-contact water recreation,
 - c. Preservation of biological habitats of special significance,
 - d. Wildlife habitat,
 - e. Rare, threatened or endangered species,
 - f. Spawning, reproduction, and development,
 - g. Marine habitat, and
 - h. Estuarine habitat.
13. The beneficial uses of the Bolsa Bay include:
 - a. Water contact recreation,
 - b. Non-contact water recreation,
 - c. Commercial and sport fishing,
 - d. Preservation of biological habitats of special significance,
 - e. Wildlife habitat,
 - f. Rare, threatened or endangered species,
 - g. Spawning, reproduction, and development,
 - h. Marine habitat, and
 - i. Shellfish harvesting.
14. The beneficial uses of the Pacific Ocean (Nearshore Zone) include:
 - a. Industrial service supply,
 - b. Navigation,
 - c. Water contact recreation,

- d. Non-contact water recreation,
 - e. Commercial and sport fishing,
 - f. Wildlife habitat,
 - g. Rare, threatened or endangered species,
 - h. Spawning, reproduction, and development,
 - i. Marine habitat, and
 - j. Shellfish harvesting.
15. The requirements contained in this Order are necessary to implement the Basin Plan.
 16. This Order implements Section 402(p) of the Clean Water Act (CWA) for storm water discharges in accordance with the final rules published by U. S. Environmental Protection Agency (EPA) on November 16, 1990 (Title 40, Code of Federal Regulations, Parts 122, 123 and 124 [40 CFR 122, 123 and 124]).
 17. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
 18. Effluent limitations and national standards of performance established pursuant to Sections 301, 303, 304, and 307 of the CWA, and amendments thereto, are applicable to this type of discharge.
 19. The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16 and finds that the discharge is consistent with those provisions.
 20. The Regional Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
 21. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE SPECIFICATIONS/PROHIBITIONS

1. The discharge specifications are designed to prevent a violation of any applicable water quality standards for receiving waters. These water quality standards for receiving waters are contained in, but not limited to, the Basin Plan.

2. The discharge of wastes shall not contain constituent concentrations in excess of the following limits:

CONSTITUENT	MAXIMUM CONCENTRATION LIMIT
Total Suspended Solids	100 mg/L
Oil and Grease	15 mg/L
Total Organic Carbon	100 mg/L
pH	6.5 - 8.5 pH units

3. Only storm water runoff from the facility shall be discharged to waters of the United States under this Order. The discharge of non-storm water to the ground or to any surface water body is prohibited.
4. The discharge of hazardous wastes, as defined in Title 22, California Code of Regulations (22 CCR), is prohibited. Any hazardous wastes generated at the site shall be disposed of at an approved disposal site.
5. The discharge shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR 117 and/or 40 CFR 302.

B. RECEIVING WATER LIMITATIONS

1. Receiving water limitations are specific interpretations of water quality standards from applicable water quality control plans. As such, they are a required part of this Order. However, a receiving water condition not in conformance with the limitation is not necessarily a violation of this Order. The Regional Board may require an investigation to determine cause and culpability prior to asserting a violation has occurred, or requiring that corrective action be taken.
2. The discharge shall not cause any of the following:
 - a. The undesirable discoloration of the receiving waters;
 - b. The deposition of objectionable bottom deposits;
 - c. The presence of visible oil, grease, scum, floating or suspended materials, or foam in the receiving waters;
 - d. The presence of objectionable odor in the receiving waters;
 - e. The natural taste and odor of fish, shellfish, or other receiving water resources used for human consumption to be impaired;
 - f. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving waters; and,

- g. The bioaccumulation of chemicals in aquatic resources to levels which are harmful to human health.
3. The discharge shall not cause or contribute to a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board.
4. A receiving water condition not in conformance with this limitation is not necessarily a violation of this Order. The discharger shall investigate the cause of such conditions and shall reevaluate their SWPPP. The SWPPP shall be revised and implemented, if necessary, in accordance with a time schedule approved by the Executive Officer. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA and amendments thereto, the Regional Board will revise and modify this Order in accordance with such more stringent standards.
5. The discharge shall not result in acute toxicity in ambient receiving waters. The effluent shall be deemed to cause acute toxicity when the toxicity test of 100% effluent, as required by Monitoring and Reporting Program No. R8-2002-0078, results in failure of the test as determined using the pass or fail test¹ protocol specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/600/4-90/027F, August 1993). The discharger shall immediately stop the discharge whenever the discharge fails the toxicity test(s). Prior to resuming the discharge, the discharger shall identify and correct the source of the toxicity to the satisfaction of the Executive Officer.

C. PROVISIONS

1. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the CWA, or amendments thereto, that shall become effective 10 days after the date of its adoption, provided that the Regional Administrator of the EPA has no objection. If the Regional Administrator objects to its issuance, this Order shall not serve as an NPDES permit until such objection is withdrawn.
2. Neither the treatment nor the discharge of storm water shall create, or threaten to create, a nuisance or pollution as defined in Section 13050 of the California Water Code.
3. Order No. 96-5 is hereby rescinded.
4. This Order expires on October 1, 2007. However, it shall continue in force and effect until a new Order is issued. The discharger must file a report of waste discharge in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations,

¹ The pass/fail survival limits for acute toxicity test require tests consisting of a control and a single concentration of effluent with a pass/fail endpoint. Control survival must be 90% or greater for an acceptable test. The test "passes" if survival in the control and effluent concentration equals or exceeds 90%. The test "fails" if survival in the effluent is less than 90% and is significantly different from control survival (which must be 90% or greater), as determined by hypothesis testing.

not later than 180 days in advance of such expiration date. The report of waste discharge shall serve as the application for issuance of new waste discharge requirements.

5. The discharger shall comply with Monitoring and Reporting Program No. R8-2002-0078. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order to include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any such modifications may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.
6. The discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.
7. The discharger shall comply with all of the terms, requirements, and conditions of this Order. Any violation of this Order constitutes a violation of the CWA, its regulations and/or the California Water Code, and is grounds for enforcement action, termination of the Order, revocation and reissuance of the Order, denial of an application for reissuance of the Order, or a combination thereof.
8. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
9. The discharger shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any effluent limitations specified in this Order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
10. The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate staffing and training, appropriate quality assurance procedures, and adequate laboratory and process controls. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a discharger only when the operation is necessary to achieve compliance with the conditions of the Order.
11. The discharger shall update the Integrated Contingency Plan, as appropriate, considering any plant changes that could affect the implementation of the plan.
12. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.
13. All discharges from the facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water bodies under their jurisdiction.

14. The discharge of wastes to property not owned or controlled by the discharger, except as covered in this Order, is prohibited.
15. Solids, sludge, and other pollutants removed in the treatment or control of storm water shall be disposed of in the manner approved by the Executive Officer of the Regional Board.
16. Safeguard to electric power failure:
 - a. Within 90 days of the effective date of this Order, the discharger shall provide appropriate safeguards to assure compliance with the terms and conditions of this Order, should there be reduction, loss, or failure of electric power. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past five years on effluent quality and on the capability of the discharger to comply with the terms and conditions of this Order. The adequacy of the safeguards is subject to the approval of the Executive Officer; and,
 - b. Should the treatment works not include safeguards against reduction, loss or failure of electric power, or should the Executive Officer not approve the existing safeguards, the discharger shall, within 90 days of the effective date of this Order or within 90 days of having been advised by the Executive Officer that the existing safeguards are inadequate, provide to the Regional Board office a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Executive Officer, become a condition of this Order.
17. This Order does not convey any property rights of any sort or any exclusive privilege.
18. This Order is not transferable to any person except after notice to and approval by the Regional Board.
19. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Board office.
20. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from its liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
21. The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order shall not be affected thereby.

22. Any violation of this Order constitutes a violation of the CWA, its regulations, and the California Water Code, and is grounds for enforcement action and/or termination of the authorization to discharge.
23. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the discharger for bypass unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;
 - b. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate backup equipment should have been installed, in the exercise of reasonable engineering judgment, to prevent a bypass that could occur during normal periods of equipment down time or preventive maintenance;
 - c. The discharger submitted a notice at least 10 days in advance of the need for a bypass to the Regional Board; and,
 - d. The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable. The discharger shall promptly notify the Regional Board and the EPA within 24 hours of each such bypass.
24. "Upset," means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations in the Order because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action. A discharger that wishes to establish the affirmative defense of an upset in an action brought for non-compliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the discharger can identify the cause(s) of the upset;
 - b. The permitted facility was being properly operated at the time of the upset;
 - c. The discharger submitted notice of the upset as required in Order Reopening, Revision, Revocation, and Renewal, E.5; and,

- d. The discharger complied with any remedial measures required under Provisions C.8 and C.9.

No determination made before an action for noncompliance, such as during administrative review of claims that noncompliance was caused by an upset, is final administrative action subject to judicial review.

In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

25. The Regional Board, EPA, and other authorized representatives shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
 - b. Access to copy any records that are kept under the conditions of this Order;
 - c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and,
 - d. To photograph, videotape, sample and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the CWA.
26. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.

D. PENALTIES

1. Violation of any of the provisions of the NPDES program or any of the provisions of this Order may subject the violator to any of the penalties described under Section 309(c) of the CWA, or any subsequent amendments to Section 309(c). The violator may be subjected to any combination of the penalties described herein at the discretion of the prosecuting authority; however, only one kind of penalty may be applied for each kind of violation.
2. The CWA provides that any person who violates a provision implementing sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates provisions implementing these sections of the CWA is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.
3. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

4. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine or not more than \$10,000 per violation, or imprisonment for not more than 6 months per violation, or both.
5. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day, or \$20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

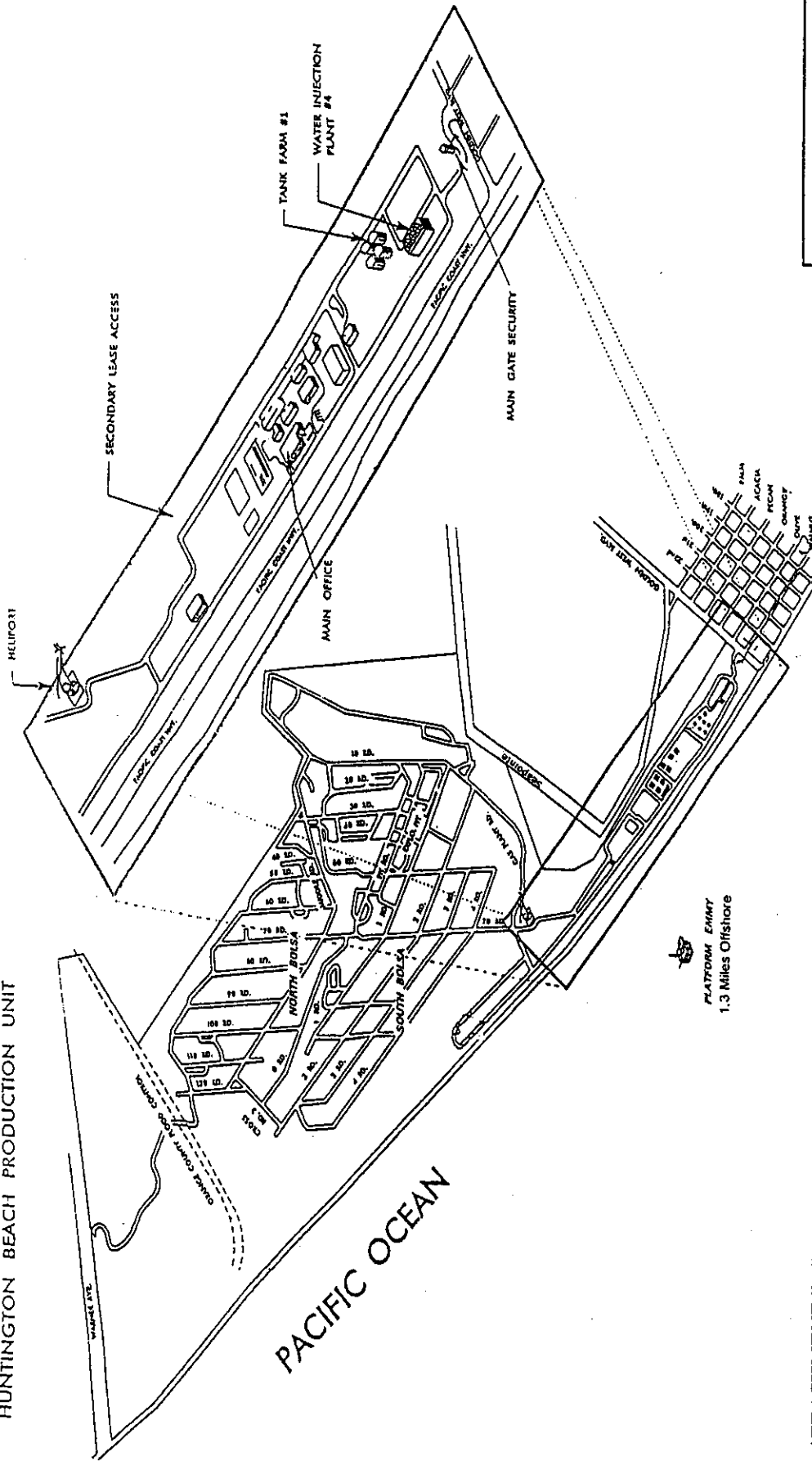
E. ORDER REOPENING, REVISION, REVOCATION, AND RENEWAL

1. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, the Regional Board will revise and modify this Order in accordance with such standards.
2. This Order may be reopened to address any changes in State or federal plans, policies or regulations that would affect the quality requirements for the discharges.
3. Any noncompliance with this Order constitutes a violation of the CWA and the California Water Code and is grounds for enforcement action; for termination, revocation, and reissuance, or modification of the Order; or for the denial of a renewal application.
4. This Order may be modified by the Regional Board prior to the expiration date to include effluent or receiving water limitations for toxic constituents determined to be present in significant amounts in the discharge through the comprehensive monitoring program included as part of this Order.
5. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for modification, revocation and reissuance, or termination of this Order or a notification of planned changes or anticipated noncompliance does not stay any Order condition.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on October 25, 2002.

Gerard J. Thibeault
Executive Officer

HUNTINGTON BEACH PRODUCTION UNIT



ATTACHMENT "A"
 Order No. R8-2002-0078, NPDES No. CAS618001
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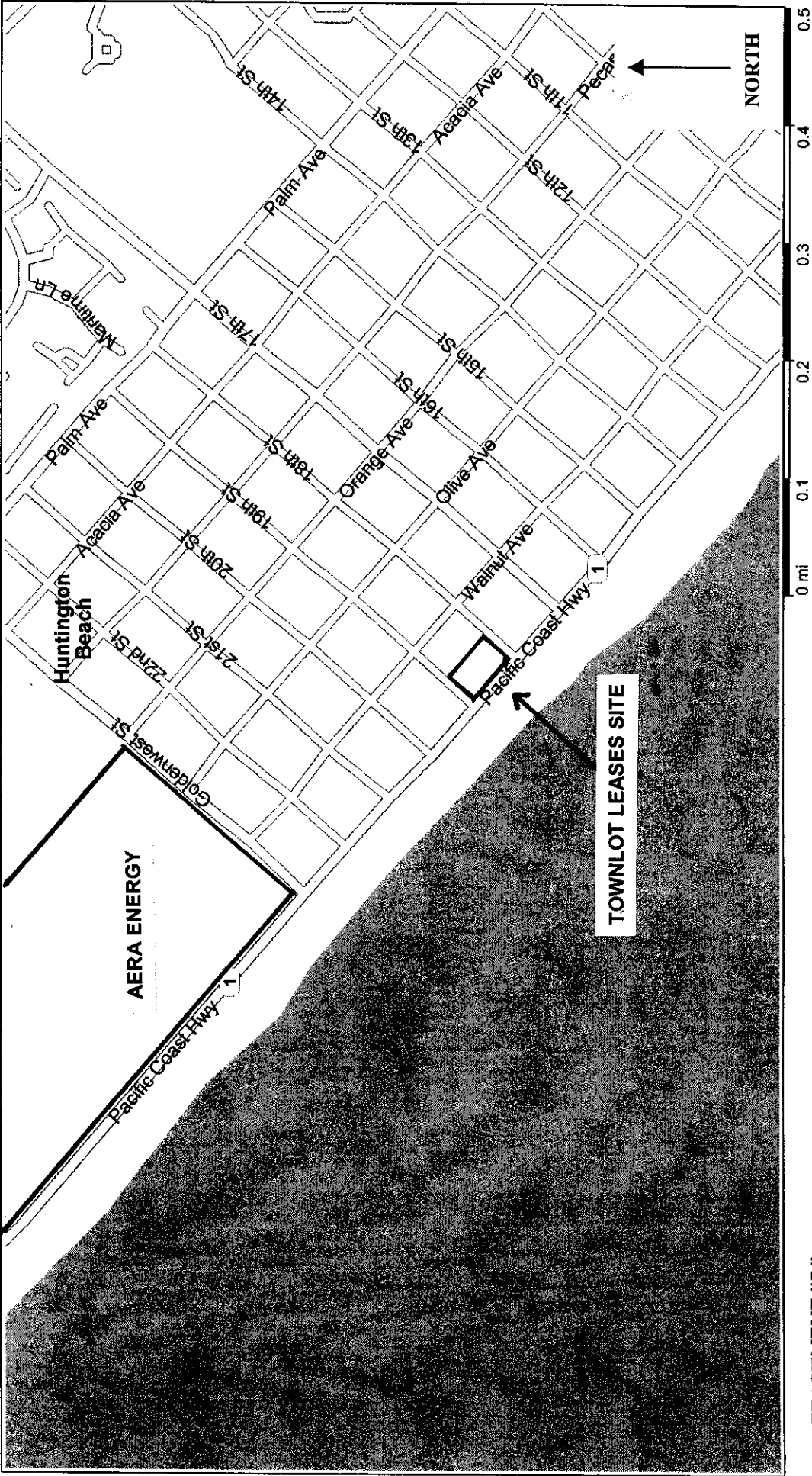
OVERALL SITE FACILITY MAP

Aera Energy LLC

Huntington Beach
 Production Unit

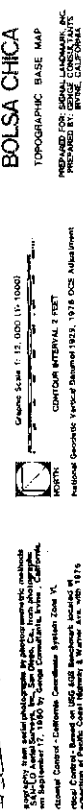
Updated 5/01

AERA ENERGY LLC – HUNTINGTON BEACH, TOWNLOT LEASES



ATTACHMENT "B"
Order No. R8-2002-0078, NPDES No. CAS618001
Page 14 of 24

TOWNLOT LEASES MAP

[illegible]

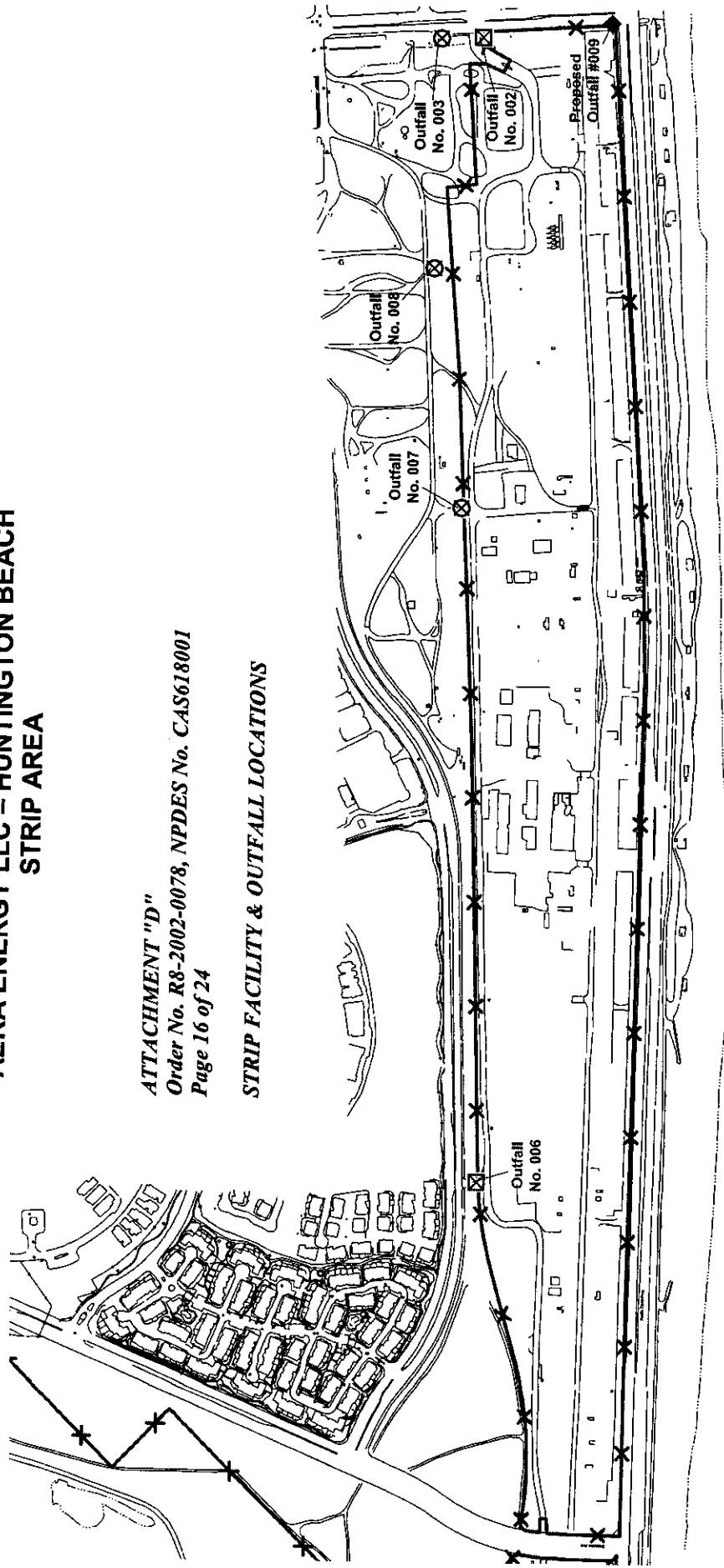
BOLSA CHICA WETLANDS SITE & OUTFALL LOCATIONS

OUTFALL #1 (To inner Bolsa Bay/Bolsa Chica Ecological Reserve)

AERA ENERGY LLC – HUNTINGTON BEACH STRIP AREA

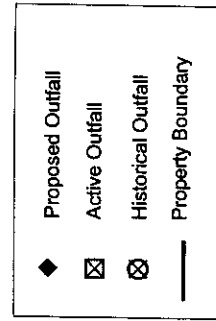
ATTACHMENT "D"
Order No. R8-2002-0078, NPDES No. CAS618001
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STRIP FACILITY & OUTFALL LOCATIONS



PACIFIC OCEAN

1" = 625'
Scale



**California Regional Water Quality Control Board
Santa Ana Region**

**Monitoring and Reporting Program No. R8-2002-0078
NPDES NO. CAS618001**

**Waste Discharge Requirements
for
Aera Energy LLC, Huntington Beach Crude Oil and Gas Production Facilities**

**Storm Water Runoff
Huntington Beach, Orange County**

A. MONITORING GUIDELINES

Monitoring shall be in accordance with the following:

1. All sampling and sample preservation shall be in accordance with the current edition of *Standard Methods for the Examination of Water and Wastewater* (American Public Health Association).
2. All laboratory analyses shall be performed in accordance with the test procedures under 40 CFR 136 (revised as of May 14, 1999) "Guidelines Establishing Test Procedures for Analysis of Pollutants," promulgated by the EPA, unless otherwise specified in this monitoring and reporting program (M&RP). In addition, the Regional Board and/or EPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 CFR 136. Unless otherwise specified herein, volatile organic pollutants shall be analyzed using EPA Method 8260, as appropriate. Title 26 metals, including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, thallium, tin, vanadium, and zinc, shall be analyzed using the EPA Method specified in Attachment "E." The results for all analyses shall be reported with method detection limits (MDLs) and with identification of practical quantitation limits (POLs) or limits of quantitation (LOQs).
3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or EPA or at laboratories approved by the Executive Officer of the Regional Board.
4. The discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least 5 years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Regional Board at any time. Records of monitoring information shall include:
 - a. The date, exact location, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;

- c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used;
 - f. All sampling and analytical results;
 - g. All monitoring equipment calibration and maintenance records;
 - h. All data used to demonstrate compliance with this Order; and,
 - i. Copies of all reports required by this Order.
5. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
6. A sampling location shall be established for each discharge point (outfall) such that representative samples of storm water runoff from the facility can be collected. These samples shall be analyzed for the following:

PARAMETERS	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Flow	MGD	Estimate	Daily ¹
Suspended Solids	mg/L	Grab	Twice Annually ²
Oil and Grease	mg/L	Grab	Twice Annually ²
Total Organic Carbon	mg/L	Grab	Twice Annually ²
pH	pH units	Grab	Twice Annually ²
Salinity Testing	mg/L	Grab	Annually ³
Toxicity Testing	Pass/Fail ³	Grab	Annually ³
Metals (See Attachment "E")	mg/L	Grab	Twice Annually ²
Volatile Organic Compounds (See Attachment "E")	µg/L	Grab	Twice Annually ²

Notes: ¹See A.8.
²See A.7.
³Applicable only to Outfall 001; see A.9.

7. During the wet season (October 1 through May 31) samples shall be collected from at least two storm events per year that produce significant storm water discharge that is preceded by at least 3 working days of dry weather. A significant storm water discharge is a continuous discharge of storm water for approximately one hour or more. Grab samples of storm water runoff from all discharge points shall be collected during the first 30 minutes of discharge. If collection of the grab sample during the first 30 minutes is

impracticable, the grab sample can be taken as soon as practicable thereafter, and the discharger shall explain in the monitoring report why the grab sample could not be taken in the first 30 minutes. These samples shall be analyzed for the constituents listed under A.6, above.

8. The discharger shall record the approximate time of each storm event-related discharge to the storm drain, its approximate duration and the flow rate.
9. The discharger shall conduct acute toxicity testing on the effluent which is representative of the discharge from Outfall No. 001 collected during the first significant storm water discharge after October 1, of each year, as specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/600/4-90/027F, August 1993). Using a control and 100% effluent, static non-renewal survival (pass/fail) tests for 96 hours shall be conducted using the two test species specified in the table below corresponding to the salinity of the effluent, for the first required annual test under this Order. Based on the results of this testing, the discharger shall determine the test species most sensitive to the effluent at this location. For the required succeeding toxicity monitoring, the discharger shall use the most sensitive species, with prior approval from the Regional Board's Executive Officer. The discharger shall submit documentation supporting the discharger's determination of the most sensitive test species. The effluent tests must be conducted concurrent with reference toxicant tests. The effluent and reference toxicant tests must meet all test acceptability criteria as specified in the acute manual (referenced above). If the test acceptability criteria are not achieved, then the discharger must resample and retest within 14 days. The test results must be reported according to the acute manual chapter on Report Preparation, and shall be attached to the monitoring reports. If a reference toxicant test is routinely performed by the toxicity testing laboratory on at least a once per month basis, the required concurrent reference toxicant testing is not necessary. The use of alternative methods for measuring acute toxicity may be considered by the Executive Officer on a case-by-case basis.

- a. Test species may be determined using the following table:

IF THE EFFLUENT OR RECEIVING WATER SALINITY IS:	TEST SPECIES	TEST
Less than 1,000 mg/L salinity	Fathead minnow, <i>Pimphales promelas</i>	Larval survival test
Less than 1,000 mg/L salinity	Water flea, <i>Ceriodaphnia dubia</i>	Survival test
Equal to or greater than 1,000 mg/L salinity	Silverside, <i>Menedia beryllina</i>	Survival test
Equal to or greater than 1,000 mg/L salinity	Pacific mysid, <i>Holmesimysis costata</i>	Survival test

- b. In the event that the required annual toxicity test fails, the discharger shall stop any discharge of storm water to waters of the U.S. and shall retest within 14 days of receiving the test results and shall determine the cause of the failure. The discharger shall stop any discharge of storm water to waters of the U.S. until such time that the cause of toxicity is determined and appropriately addressed. Commencement of any discharge shall be with prior approval by the Executive Officer.
10. All analytical data shall be reported with MDLs and with identification of either PQLs or LOQs.
11. Laboratory data must quantify each constituent down to PQLs and shall identify any constituent concentrations falling between the laboratory's MDL and PQL as a "trace." Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data are unavailable or unacceptable.
12. Whenever the discharger monitors storm water more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.
13. All drainage control and containment structures shall be inspected monthly and their condition recorded in a permanent log.
14. Information such as date, volume, name of the licensed hauler, and the disposal location for the hazardous wastes hauled from the facility shall be recorded in a permanent log.
15. Each outfall shall be inspected daily to determine if any dry weather discharge is occurring.
16. Discharge monitoring data shall be submitted in a format acceptable to the Executive Officer. Specific reporting format may include preprinted forms and/or electronic media. The results of all monitoring required by this Order shall be reported to the Executive Officer, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order.

B. REPORTING

Reporting shall be in accordance with the following:

1. All applications, monitoring reports, or information submitted to the Regional Board shall be signed and certified by a responsible officer or duly authorized employee of the discharger, in accordance with 40 CFR 122.22, and shall be submitted under penalty of perjury.
2. All current analytical results shall be arranged in a tabular format to clearly show compliance or noncompliance with each discharge specification. Historical analytical results shall also be included in this table.

3. The discharger shall file with the Regional Board technical reports on self-monitoring work performed according to the detailed specifications contained herein or as directed by the Executive Officer. The discharger shall mail a copy of each monitoring report and any other letters or reports as required by this Order to:

California Regional Water Quality Control Board
Santa Ana Region – Coastal Storm Water Unit
3737 Main Street, Suite 500
Riverside, CA 92501-3348

4. The discharger shall furnish, within a reasonable time, any information that the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
5. The discharger shall file with the Regional Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.
6. The discharger shall give advance notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility.
7. The discharger shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with these waste discharge requirements.
8. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, and of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the discharge will be in compliance. The discharger shall notify the Regional Board by letter when compliance with the time schedule has been achieved.
9. Noncompliance Reporting shall include the following:
 - a. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided to the Executive Officer (909-782-4130) and the Office of Emergency Services (800-852-7550) orally within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or proposed to reduce, eliminate, and prevent recurrence of the noncompliance.

- b. The following shall be included as information that must be reported within 24 hours under this paragraph:
 - i. Any unanticipated bypass that exceeds any effluent limitation in this Order;
 - ii. Any upset that exceeds any effluent limitation in this Order; and,
 - iii. Any violation of a maximum daily discharge limitation for any of the pollutants listed in this Order.
 - c. The Executive Officer may waive the above required, written report on a case-by-case basis.
10. Except for data determined to be confidential under Section 308 of the CWA, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of the EPA. As required by the CWA, effluent data shall not be considered confidential.
11. Monitoring reports shall be submitted on or before July 1st for the previous year and shall include the following:
- a. The results of all chemical analyses for the previous monitoring period and annual samples where applicable, which shall include copies of the analytical reports, quality assurance/quality control reports, and chains-of-custody; and,
 - b. Toxicity testing data, including effluent and/or receiving water salinity analyses, copies of the analytical reports, quality assurance/quality control reports, and chains-of-custody.
12. If no discharge occurs during the monitoring period, a report to that effect shall be submitted in lieu of a monitoring report.

C. DEFINITIONS

- 1. A "grab" sample is defined as any individual sample collected in less than 15 minutes.
- 2. "Limit of quantification (LOQ)" is defined as the lowest level that can be reasonably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
- 3. The "maximum daily" concentration is defined as the measurement made on any single grab sample or composite sample.
- 4. "Method detection limit (MDL)" is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The analytical laboratory should determine MDLs for each method, matrix, and analyte.

5. "Practical quantitation limit (PQL)" is defined as the lowest level that can be reasonably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Ordered by _____

Gerard J. Thibeault
Executive Officer

October 25, 2002

ATTACHMENT "E"

Metals	US EPA Method
Antimony, Total	200.7
Arsenic, Total	200.7
Barium, Total	200.7
Beryllium, Total	200.7
Cadmium, Total	200.7
Chromium, Total	200.7
Cobalt, Total	200.7
Copper, Total	200.7
Lead, Total	200.7
Mercury, Total	245.1
Nickel, Total	200.7
Selenium, Total	200.7
Silver, Total	200.7
Thallium, Total	200.7
Tin, Total	200.7
Vanadium, Total	200.7
Zinc, Total	200.7
Volatile Organic Compounds	US EPA Method
Acrolein	8260
Acrylonitrile	8260
Benzene	8260
Bromoform	8260
Carbon Tetrachloride	8260
Chlorobenzene	8260
Chlorodibromomethane	8260
Chloroethane	8260
2-Chloroethylvinyl Ether	8260
Chloroform	8260
Dichlorobromomethane	8260
1,1-Dichloroethane	8260
1,2-Dichloroethane	8260
1,1-Dichloroethylene	8260
1,2-Dichloropropane	8260
1,3-Dichloropropylene	8260
Ethylbenzene	8260
Methyl Bromide	8260
Methyl Chloride	8260
Methylene Chloride	8260
1,1,2,2-Tetrachloroethane	8260
Tetrachloroethylene	8260
Toluene	8260
1,2-Trans-Dichloroethylene	8260
1,1,1-Trichloroethane	8260
1,1,2-Trichloroethane	8260
Trichloroethylene	8260
Vinyl Chloride	8260

Errata Sheet for Tentative Order No. R8-2002-0078
NPDES No. CAS618001

1. Statement of Basis, Background, 2nd paragraph:

2. Statement of Basis, Background, 6th paragraph:

3. Finding 5., Page 2 of 24:

4. Finding 8., Page 3 of 24: replace the table with the following.

Outfall Number	Discharger's Identification	Latitude			Longitude			Receiving Water
001	Bolsa Chica	33°	41'	53.63"	118°	02'	40.93"	Bolsa Chica Ecological Reserve/Pacific Ocean
002	23	33°	40'	10.79"	118°	00'	58.65"	Storm Drain/Pacific Ocean
005	4	33°	40'	51.80"	118°	01'	58.68"	Pacific Ocean
006	11	33°	40'	42.51"	118°	01'	38.20"	Storm Drain/Pacific Ocean
009	Not Yet Constructed							Storm Drain/Pacific Ocean